TABLE OF CONTENTS

No. 1. January 1939

Prefatory note 1
Aberrant ganglion cells as a source of intact fibers in severed dorsal roots. DONALD DUNCAN and E. S. CROCKER 3
The localization in the brain stem of the oestrous responses of the female guinea pig. EDWARD W. DEMPSEY and DAVID MCK. RIOCH 9
Responses following electrical stimulation of the cerebellar cortex in the normal cat. SAM L. CLARK 19
Simultaneous electromyograms and electroencephalograms in paralysis agitans. ROBERT S. SCHWAB and STANLEY COBB 36
Temperature changes in the cortex and hypothalamus during sleep. H. M. SEROTA 42
Factors influencing brain potentials during sleep. HELEN BLAKE, R. W. GERARD and N. KLEITMAN 48
Hypothalamic regulation of body temperature. GEORGE CLARK, H. W. MAGOUN and S. W. RANSON 61
Similarity of effects of barbiturate anesthesia and spinal transection. H. K. BEECHER, F. K. MCDONOUGH and A. FORBES 81
A STYLE BOOK containing suggestions for the preparation of manuscripts 89

No. 2. March 1939

The course of recovery of the spinal cord from asphyxia. A. VAN HARREVELD and GEORGE MARMONT 101
Cortical response to sensory stimulation under deep barbiturate narcosis. A. FORBES and B. R. MORISON 112
A search for changes in direct-current potentials of the head during sleep. H. DAVIS, P. A. DAVIS, A. L. LOOMIS, E. N. HARVEY and G. HOBART 129
On the influence of anoxia on pupillary reflexes in the rabbit. BORIS URY and ERNST GELLHORN 136
Factors controlling brain potentials in the cat. H. H. DUBNER and R. W. GERARD 142
Control of the potential rhythm of the isolated frog brain. B. LIBET and R. W. GERARD 153
Brain wave frequencies and cellular metabolism. Effects of dinitrophenol. HUDSON HOAGLAND, MORTON A. RUBIN and D. EWEN CAMERON 170

No. 3. May 1939

The conditioned reflex of blinking. G. MARTINO 173
Sur un phénomene de facilitation rétroactive dans l'éxcitation électrique de branches nerveuses cutanées (sensibilité tactile). H. PIÉRON ET J. SEGAL 178
Ablations of frontal cortex in cats with special reference to enhancement of the scratch reflex. F. KEITH BRADFORD 192
Temperature regulation in cats with thalamic lesions. GEORGE CLARK, H. W. MAGOUN and S. W. RANSON 202
Effects of frontal lobe lesions on temporally organized behavior in monkeys. JOHN L. FINAN 208
Relation of stimulation time of receptors to recovery time in the nervous system: Visual, olfactory and auditory senses. CHARLES A. ELSBERG and H. SPOTNITZ 227
Anatomy, physiology and surgical considerations of the spinal tract of the trigeminal nerve. A. EARL WALKER 234
Time constant of excitation and velocity in supernormal phase of nerve. H. A. BLAIR 249

No. 4. July 1939

Cerebral blood flow during induced epileptiform seizures in animals and man. WILDER PENFIELD, KÁLMÁN VON SÁNTHA and ANDRÉ CIPRIANI 257
Rôle of the sympathetic system in reflex dilatation of pupil. BORIS URY and ERNST GELLHORN 268
Effects of hypoglycemia and pentobarbital sodium on electrical activity of cerebral cortex and hypothalamus (dogs). HUDSON HOAGLAND, HAROLD E. HIMWICH, ELDRIDGE CAMPBELL, JOSEPH F. FAZEKAS and ZAREH HADIDIAN 276
Cortical action potentials during anesthesia. HENRY K. BEECHER and F. K. MCDONOUGH 289
The acoustic area of the cerebral cortex in the cat. A combined oscillographic and cytoarchitectonic study. F. BREMER and R. S. DOW 308
Factors for facilitation and extinction in the central nervous system. J. G. DUSSER de BARENNE and W. S. MCCULLOCH 319
Control by the central nervous system of the rectal smooth muscle. ORTHELLO R. LANGWORTHY and SEYMOUR J. ROSENBERG 356

No. 5. September 1939

SYMPOSIUM ON THE SYNAPSE

Axons as samples of nervous tissue. HERBERT S. GASSER 361
The initiation of impulses in axons. JOSEPH ERLANGER 370
Synaptic mechanisms in sympathetic ganglia. DETLEV W. BRONK 380
Transmission of impulses through cranial motor nuclei. RAFAEL LORENTE DE NÓ 402
Problems of synaptic function. ALEXANDER FORBES 465

No. 6. November 1939

Physiological analysis of the general cortex in reptiles and birds. F. BREMER, R. S. DOW and G. MORUZZI 473
Studies in the physiology of the embryonic nervous system: IV. Development of acetylcholine in the chick embryo. ZING YANG KUO 488
Effects of acoustic stimuli on the waking human brain. P. A. DAVIS 494
Electrical reactions of the human brain to auditory stimulation during sleep. H. DAVIS, P. A. DAVIS, A. L. LOOMIS, E. N. HARVEY and G. HOBART 500
Conditioning of afferent impulses by reflex discharges over the dorsal roots. JAN F. TOENNIES 515
Spinal pathways for nictitating membrane reflexes in the cat. S. HOWARD ARMSTRONG and DAVID MCK. RIOCH 526
Vagal inhibition of inspiration, and accompanying changes of respiratory rhythm. T. E. BOYD and C. A. MAASKE 533
Cerebellar action potentials in response to stimulation of various afferent connections. ROBERT S. DOW 543
Changes in retinal excitability due to polarization and some observations on the relation between the processes in retina and nerve. RAGNAR GRANIT and TOIVO HELME 556
The effect of eserine on spinal reflexes in the dog. JEROME K. MERLIS and HAMPDEN LAWSON 566